Two Contrasting Perspectives of Enterprise Systems: Towards Reconciliation

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Abstract. This conceptual paper is based on an informal literature review of enterprise systems (ES), and describes two contrasting perspectives of ES: The first is “the managerial or technical understanding of ES” focusing on economic efficiency and improved financial performance where ES are broadly viewed as transformative technologies with universal logics to be applied extensively across organization; and the second perspective is labelled “the social study of enterprise systems,” where scholars have advanced a situated and localist explanations for ES with focus on uniqueness in the structures and practices in the organization. The two camps tend to be understood as dichotomous, but the paper argues that the two camps instead should be seen as mutually dependent and overlapping so moving towards reconciliation as this is relevant for research to give a more holistic understanding of ES, and to offer practitioners a conceptual tool to understand complex scenarios involving ES.

Key words: Enterprise systems, Enterprise systems research, Enterprise resource planning (ERP) systems, Managerial and technical understanding of enterprise systems, social study of enterprise systems.

1 Introduction

Enterprise systems (ES) research is diverse, comprehensive and interdisciplinary, the area spanning IS, computer science, accounting, operation management and several other research disciplines

(Kraemmergaard and Schlichter 2009). ES has been on the market since the beginning of the nineties (Jacobs and Weston 2007), but academic research into ES first took off in the late nineties (Lorenzo 2004; Ramiller et al. 2008), ostensibly started by Davenport's paper about mega packages (1996) followed by his seminal paper "Putting the enterprise into the enterprise system" (1998) (see also Klaus et al. 2000). The topic has been on the agenda in journals and at conferences since then (Esteves and Bohorquez 2007; Ramiller et al. 2008). However, forerunners to ES, such as accounting systems and material resource planning systems (MRP, MRP-II), can be traced back to the 1960s (Pollock and Williams 2009: 22-32; Scarbrough et al. 2008).

Pollock and Williams (2009: 5) argue that social science research on ES is largely gathered around two contrasting perspectives. The first is "the managerial or technical understanding of ES" focusing on economic efficiency and improved financial performance (Dillard and Yuthas 2006). ES are broadly viewed as transformative technologies with universal logics, which can be applied extensively across organizations to bring widespread change. This perspective has been contrasted with a second perspective labeled "the social study of enterprise systems," where scholars have advanced situated and localist explanations for ES. The focus is on uniqueness in the structure and practices in the organization, which often counteract the adaptation of standardized ES (adapted from Pollock and Williams 2009: 5).

The purpose of this paper is to distill relevant elements from this broad research area by means of (1) presenting the two contrasting perspectives of ES and (2) arguing for reconciliation of the two camps. This is not a formal literature review and the paper does not seek to do justice to the many streams of ES research, but instead takes a focused approach to develop an integrated understanding of ES concepts and perspectives based on current research.

The paper is organized as follows. The next chapter presents the research methodology. This is following by an overview of enterprise systems and hereafter a discussion of the two contrasting perspectives. The paper finalizes by arguing for reconcialitation of the two perspectives in the discussion and conclusion chapters.

2 Research Methodology

This is an informal literature review based on Pollock and Williams (2009) work where they distinguishes between two contrasting perspectives of ES. This work has been used to create an initial list of references combined with other literature reviews of ES (e.g. Esteves and Bohorquez 2007) which has been further elaborated going backwards and forwards in these initial references (Webster and Watson 2002) to create the final list of literatures included in this paper, additional information are available elsewhere (Svejvig 2010). The selected literature list is then categorized according to the two contrasting perspectives of ES and specific themes, ideas and agruments are deduced.

3 Enterprise Systems

Seddon et al. (2003) define enterprise systems as large-scale organizational systems, built around packaged enterprise systems software, enabling an organization to automate and integrate a comprehensive part of its business processes, to share common data and practices and to produce and access information in real time. ES promise to make a seamless flow of information across all the parts of an organization, crossing geographic, functional and organizational boundaries (Dillard and Yuthas 2006). ES can be characterized as "multi-everything" artifacts – multi-industry, multifunction, multi-processes etc. (Kholeif et al. 2008: 20). The systems are designed to manage business systems globally, drive compliant business processes worldwide and deploy country-specific capabilities to operate anywhere in the world (Oracle 2008).

The ES market is enormous and accounted for US$ 50 billion in 2008, when SAP and Oracle dominated the market with a share of respectively 31% and 17% according to AMR research (D'Aquila et al. 2009). ES implementation costs might be 5 times the cost of the software and services or even more (Scheer and Habermann 2000), so the total spending might approximate US$ 250 billion in 2008, indicating huge investments in ES.

"ES have fundamentally changed the way business is done in many industries" (Dillard and Yuthas 2006: 205). When industry leaders implement an ES, competitors have a propensity to follow along, often with the same ES vendor (Davenport 1998: 126), as well as upstream and downstream business partners in the supply chain.

The most important category of ES is enterprise resource planning systems (ERP systems) with other categories such as customer relationship management systems (CRM systems), supply chain management systems (SCM systems), human capital management systems (HCM systems), product life-cycle management systems (PLM systems), data warehousing, decision support and others (Jacobson et al. 2007; Seddon et al. 2003).

ES software is, unlike tailor-made software, not designed for the precise needs and requirements of an organization, but instead a semi-finished product that the organization has to tailor to its needs. Tailoring could be configuration (setting up parameters) and/or customization (adding non-standard features to the software by programming) (Seddon et al. 2003). Organizations are advised to go for configuring without customizations (labelled vanilla implementations in industry) by consultants (Hildebrand 2009) and academia (Parr and Shanks 2003; Seddon et al. 2003) or at least to minimize customizations as much as possible (Beatty and Williams 2006).

So, although ES ships as "complete, though flexible, ready to implement solution[s]" (Soh and Sia 2004: 376), they do come with built-in assumptions (Seddon et al. 2003) often referred to as best practices based on industry standards anticipated to be the most rational and progressive business processes available. Organizations have to replace their current practices with these best practices through a re-engineering process (Dillard and Yuthas 2006: 206), particularly with vanilla implementations. This might be a problematic process depending on the difference between the current practices and the best practices embedded in the ES, and some organizations find it very difficult to accept the standardized solutions.

Company-wide ES implementations often trigger major organizational changes and at the same time introduce high risk with a potential high reward (Chae and Lanzara 2006: 100; Markus 2004). Some companies have gained an important increase in productivity and speed (Häkkinen and Hilmola 2008), while others have highly overestimated the value of ES (Davenport 1998; Robbins-Gioia 2002).

4 Two Contrasting Perspectives of Enterprise Systems

As said in the introduction the social science research on ES is largely gathered around two contrasting perspectives, "the managerial or technical understanding of ES" and "the social study of enterprise systems". The following sections will elaborate on the two perspectives and point to selected literature.

4.1 The Managerial and Technical Understanding of Enterprise Systems

The managerial and technical understanding of ES is evidenced in trade publications, consultancy reports, supply-dominated information (vendor white papers, brochures, manuals etc.) and much academic literature (adapted from Dillard and Yuthas 2006; Pollock and Williams 2009).

Below is a table that provides an overview of themes with ideas/arguments and selected references within the managerial and technical understanding of ES:

Themes	*Selected references (trade publications, consultancy reports, vendor information and academic literature)*	*Ideas/arguments*
ES as generic systems (scope, technology, history etc.)	(Davenport 1998; Davenport 2000; Jacobs and Weston 2007; Klaus et al. 2000; Seddon et al. 2003)	ES are generic systems, which can be recycled across similar organizations and now increasingly also across different industry sectors or organizational forms. ES are thus viewed as transformative technologies containing universal logics that can be applied to all kinds of organizations. ES offer greater certainty and rational control that provides a solution to the challenges and problems that organizations are facing. ES are an instrument for achieving managerial/organizational goals based on rational choice and control.
Methodologies, life-cycle models, tools and techniques for ES	(Bancroft et al. 1998; Markus and Tanis 2000; O'Leary 2000; Parr and Shanks 2000; Ptak and Schragenheim 2003; Ross et al. 2003)	There is a strong managerial focus on specifying guidelines for successful implementation. The literature is framed in strictly technical or managerial terms where contextual circumstances, behavioral assumptions underlying ES implementations and the architecture of packages are given little attention.
Critical success factors and risk factors	(Finney and Corbett 2007; Parr and Shanks 2003; Sumner 2003)	
Successful implementation of ES	(Beatty and Williams 2006; Hildebrand 2009; Scheer and Habermann 2000)	
Gaining value from ES	(Davenport et al. 2002; Davenport et al. 2004; Deloitte Consulting 1999; Hawking et al. 2004; Ross and Vitale 2000; Shang and Seddon 2003; Ward 2006; Willis and Willis-Brown 2002)	ES are drivers of organizational change anticipated to enhance economic efficiency, improve financial performance and bring organizational improvement in general. The managerial and technical understanding is shaped by the statements and rhetorics of

Themes	*Selected references (trade publications, consultancy reports, vendor information and academic literature)*	*Ideas/arguments*
Positioning of ES by vendors	(Oracle 2008; SAP and Capgemini 2009)	technology supply.
ES market (sizing, vendor ranking etc.)	(D'Aquila et al. 2009; Jacobson et al. 2007)	

Table 1: Ideas and arguments within the managerial and technical understanding of ES

The table repeats many references from the previous section about ES, which indicate that it is biased towards the managerial and technical understanding of ES. This fairly heterogeneous research stream covers a wide range of assumptions and ideas.

First, the literature presents ES as *generic* systems, which can be *recycled* across similar organizations and now increasingly also across different industry sectors or organizational forms (e.g. from the private to the public sector). ES are thus viewed as transformative technologies containing universal logics that can be applied to all kinds of organizations (Bendoly and Jacobs 2005; O'Leary 2000) based on the way companies operate in general (Davenport 1998). Jacobs and Weston (2007: 363) explain that "Generic ERP software packages are already increasingly tailored to specific market segments … Preconfigured software modules incorporating best practices and standard business processes will simplify future implementations," and this illustrates the understanding of the universal ES with best practices and standard business processes that can be diffused to different market segments.

Second, there is a strong managerial focus in the literature on specifying guidelines for successful implementation like enterprise systems' experience cycle linked to recipe for success (Markus and Tanis 2000 e.g. table 10.3) best practices for successfully implementing an ERP upgrade (Beatty and Williams 2006) and general methodologies, tools and techniques for ES implementations (Bancroft et al. 1998; O'Leary 2000; Ptak and Schragenheim 2003). A related set of literature presents lists of critical success factors or risk factors associated with ES implementations based on literature reviews (Finney and Corbett 2007), a combination of reviews of literature and interviews with ERP implementation practitioners (Parr and Shanks 2003) and case studies (Sumner 2003). The literature is concerned with all the issues related to ES implementations addressing technical aspects, working practices, operating procedures and human competences including the re-engineering of the organization with new structures and procedures. The literature is framed in strictly technical or managerial terms where contextual circumstances, behavioral assumptions underlying ES implementations and the architecture of packages are given little attention (Kallinikos 2004: 12).

Third, ES are drivers of organizational change (Davenport 2000) anticipated to enhance economic efficiency, improve financial performance (Dillard and Yuthas 2006: 204) and bring organizational improvement in general. ES vendors of course promote the benefits of their ES whether they are streamlining a global operation to reduce operating costs (Oracle 2008) or changing a business to accelerate sales (SAP and Capgemini 2009). The value theme is taken up by consultancy companies, with Deloitte Consulting (1999) advocating for a second wave to maximize the value of ERP and in the same vain Accenture stating "that many leading organizations are revisiting the original promise of enterprise solutions, and taking actions now to realize the value they need from the systems" (Davenport et al. 2002: 5). The second-wave approach was taken up by researchers in the book "Second-Wave Enterprise Resource Planning Systems – Implementing for

Effectiveness" (Shanks et al. 2003) and by other researchers (Ward 2006; Willis and Willis-Brown 2002) as the impetus for (finally) realizing the benefits of ES.

Fourth, ES offers greater certainty and rational control that provides a solution to the challenges and problems that organizations are facing. This is an instrumental view of technology as a subject (tool) for achieving managerial/organizational goals based on rational choice and control (Davenport 1998; O'Leary 2000). "ERP systems represent powerful mechanisms for structuring organizational context and practices" (Dillard and Yuthas 2006: 204) as a rational tool for managers to achieve economic efficiency and effectiveness or other organizational goals. Some organizations have used ES to make the culture less autonomous or to streamline operating practices across geographically dispersed units and achieve tighter coordination (and control) throughout their business (Davenport 1998). Technology is viewed as an exogenous causal factor (independent variable) with calculative logic causing a specific outcome (dependent variable) of achieving the goals (Pollock and Williams 2009).

Fifth, the managerial and technical understanding is shaped by the statements and rhetorics of technology supply. Technological practice is ahead of research in the ES domain (Pollock and Williams 2009: 53-56, 69), which means that there is a flow of statements and rhetoric from ES vendors, industry analysts and consultants to researchers (which is sometimes adopted fairly uncritically) (see also Baskerville and Myers 2009). The ERP concept coined by the Gartner Group in the early 1990s (Jacobs and Weston 2007) and the second-wave concept (Deloitte Consulting 1999) are two examples of topics where some management researchers and others tend to align with the statements and rhetorics of technology supply. The rhetorics of technology supply are persistent and the primary motive is to promote a particular discourse on how the world could be (or should be) and induce the discourse (Pollock and Williams 2009: 54-55) from the ES opinion formers (vendors, industry analysts, consultants) to ES consumers (decision makers, users) and the ES research community – that is, alignment of interest (Latour 1987). It is desirable, perhaps inevitable, to follow the technological pathways stipulated by the discourse.

4.2 The Social Study of Enterprise Systems

The term "social study of enterprise systems" is borrowed and adapted from Pollock and Williams (2009: 8), and embraces studies where "the social" forms an essential part of the understanding and interpreting of ES. These studies generally contrast the managerial and technical understanding by focusing on situated and localist explanations of ES, on organizations' uniqueness in structure and practices and the wider historical, contextual and processual circumstances.

While the managerial and technical understanding of ES is imprinted by a rather prescriptive orientation (Kallinikos 2004) and "tends to be based on a … weak empirical base" (Pollock and Williams 2009: 6), the social study of ES is to a large extent analytic and exploratory, providing rich lenses for viewing and explaining ES in empirical settings.

The table below shows some of the arguments and ideas expressed by this research stream:

Themes	*Selected references*	*Ideas/arguments*
ES as enabler and constrainer	(Kallinikos 2004; Quattrone and Hopper 2006)	ES influence patterns of cognition, action and communication, but they do not definitely determine organizational actors' behavior. They have profound effects on the structuring of work practices and enable as well as constrain human action.

Themes	*Selected references*	*Ideas/arguments*
ES as technology of power and empowerment	(Elmes et al. 2005; Sia et al. 2002; Tang et al. 2000)	ES serves as a mechanism for increased power of management as the global, cross-functional and real-time information is ideal for increasing control. However, users might also experience greater empowerment because they obtain more and broader visibility in operations with real-time information enabling them to be more responsive and autonomous.
Drift instead of control	(Ciborra and Failla 2001; Elbanna 2008; Hanseth and Braa 1998; Hanseth et al. 2001)	ES implementations can only be controlled to some extent and drift is inherent. Drift might be useful for keeping commitment among users or even necessary to ensure user acceptance of ES. The consequences of drift might be problematic for organizations because the unanticipated outcomes impede current or future business operations and/or reduce the anticipated benefits.
ES are initially flexible but turn into rigid inflexible systems	(Hanseth and Braa 1998; Lindley et al. 2008)	ES ship as multi-everything, flexible and configurable systems, but solidify into rigid inflexible systems once they are set (i.e. configured and possibly customized). This prevents or delays future development in organizations and increases the cost of change and innovation. ES resist change instead of driving change.
The complexity of misalignment	(Berente 2009; Elbanna 2008; Gosain 2004; Hanseth and Braa 1998; Kholeif et al. 2008; Soh and Sia 2004; Svejvig and Jensen 2009)	Misalignment is a fundamental and complex problem associated with ES. Studies point to some strategies to reduce gaps and misalignment: (1) a high degree of tailoring, (2) accept the drift of the solution and benefits and/or (3) accept loose couplings. Tailor-made software might be the solution for certain institutional contexts in order to overcome misalignment.

Table 2: Ideas and arguments within the social study of ES

The table above presents some of the themes in the social study of ES, and the following will detail these starting with basic assumptions about ES.

The basic epistemological and ontological assumptions associated with the managerial and technical understanding of ES are not well articulated in the relevant literature, but are embedded implicitly. This perspective seems to understand “ES as an object with predefined structures enabling predefined actions by organizational actors,” alias a form of technological determinism. Social studies of ES move away from technological determinism to social constructionism. One mainstream position within social constructionism is the interpretive stance, which could be illustrated by Orlikowski’s (1992) “interpretive flexibility of technology” where users interpret and enact IT differently – that is, multiple interpretations of the same object (Quattrone and Hopper 2006). However, as Kallinikos (2004: 10) argues, ES moves a step further in shaping human agency, contrary to some information systems (e.g. groupware, decision support), as ES have a *profound* effect on the structuring of work and how they enable or constrain organizational actors, so the interpretive flexibility might be an imperfect description as it tends to suggest that anything (or everything) goes, which is certainly not the case with ES. Quattrone and Hopper (2006: 220) propose a more adequate description: “Objects [like ES] should be *more* than social construction (to avoid relativism whereby anything goes and humans are king) and *less* than realism (to avoid reifying objects and ignoring interpretive flexibility),” and the theorization should be within the two extremes. The quotation above can be translated into a less elastic account (adapted from Kallinikos 2004: 10):

> ES influence patterns of cognition, action and communication, but they do not definitely determine organizational actors’ behavior. They have profound effects on the structuring of work practices and enable as well as constrain human action.

ES are, from the managerial perspective, implemented to achieve some organizational goals and enforce some standard practices across the organization. They are implemented to tighten management control (Sia et al. 2002). However, studies point out that the outcomes of ES implementations are ambivalent (Elmes et al. 2005; Sia et al. 2002). A study of a global organization (ACRO) with 20 000 employees producing and selling high-precision industrial products and undergoing a multi-year, multi-phased ES implementation showed that the ES at ACRO served as a mechanism for increased organizational control, as the ES vendors advocated and advertised, but the users at the same experienced greater empowerment (Elmes et al. 2005). The users were empowered because they obtained more and broader visibility in operations with real-time information, enabling them to be more responsive and autonomous. The ES also acts as a panopticon (cf. Foucault 1977) for management as the global, cross-functional and real-time information is ideal for increasing control and surveillance by management. Elmes et al. (2005) propose the concept of panoptic empowerment as an apparent paradox related to ES implementations involving power and empowerment. Sia et al. (2002) describe a similar study in a Singaporean hospital where the ES implementation facilitated an increase in both control and empowerment. However, the management consciously resisted the empowerment by reinstituting the power lost through the ES implementation. Both cases indicate that ES are a technology of power and control while the empowerment perspective is more ambiguous and can be disabled or enabled under certain circumstances.

Although ES are implemented to achieve organizational goals and enforce standard practices across the organization, some studies shows that drift is inherent in ES implementations. An ERP project in a large multinational reputable food and beverage company (with more than 25 business units) had the objective of implementing a single system across its units, replacing local systems, but the project drifted, due to user pressure, to an ERP system that interfaces to many other systems instead of replacing them (Elbanna 2008). Norsk Hydro, a diversified Norwegian company, had the same goal, “to have one shared universal solution” with their SAP system, but the solution drifted into variants at each site (different tailoring) and the SAP solution changed from one coherent common system into a complex heterogeneous infrastructure (Hanseth and Braa 1998). The consequences of drift might be problematic as the case with Norsk Hydro shows, because it is very expensive to upgrade and develop the heterogeneous infrastructure, but drift can also be *useful* to continue the commitment and contributions from organizational actors (Elbanna 2008) or even a *necessary* price to pay "[t]he customization … seems to have been the price to pay to enroll local users and managers into the project, and to counter to the objections that SAP was a significant step back in functionality compared to existing local systems" (Hanseth and Braa 1998: 194).

The Norsk Hydro study presents another related problem. The SAP system ships as a multi-everything, flexible and configurable system, but when the configuration is set (and, even worse, customizations implemented) then SAP solidifies to concrete figurative speaking. Although it is technically possible to change the solidified heterogeneous infrastructure it is very complicated in practice (resulting in long schedules and high costs for re-engineering projects) (Hanseth and Braa 1998). Lindley et al. (2008) point out the same problem with the lack of flexibility in ES, which impedes change and innovation by increasing costs or delays in implementations. This rigidity could even lead to the rejection of many cost-saving or efficiency-enhancing projects because they are not profitable. So, the consequences are severe for organizations and sometimes the direct reverse of the promises from the ES opinion formers (vendors, consultants, industry analysts etc.), although in fairness it should be stated that the same audience loudly warns against customizations (e.g. Beatty and Williams 2006; Hildebrand 2009), which are one of the major "concrete creators" with the argument that vanilla implementations are much easier to upgrade. Davenport (2000) has also addressed the inflexibility of ES and he acknowledges the critique but asks "what is the alternative?" The old silo legacy system was probably even more rigid and "the flexible object-oriented highly modular system" is still hypothetical dream-ware – although customers demand these flexible solutions. Regardless of the reasons, the understanding amongst organizations and users might be that ES resist change instead of driving change due to the rigidity in the ES (see also Nash 2010).

The challenges with drift in ES implementation and inflexibility in ES are related to the debate about misalignment. Misalignment is basically a misfit between the existing practices in the organization and the best practices embedded in the ES, and the managerial objective is to re-engineer the practices and tailor the ES to achieve a tight coupling, which is important for integration and control (Sumner 2009). However, the gaps can be quite great (Soh et al. 2000); a high degree of tailoring is one approach to reduce the gaps and drift is another (unplanned) way emerging from implementation and use. These strategies, alone or combined, might lead to the unwanted solidified concrete ES, and to avoid this the preferred managerial advice is often to re-engineer the existing practices (Beatty and Williams 2006; Hildebrand 2009) or "putting the enterprise into the Enterprise System" (Davenport 1998). A third strategy is to accept a loose coupling between the organization and the system, but this compromises the goals of ES implementations of tight integration and control (Sumner 2009). Alignment strategies are filled with dilemmas, compromises and difficult decisions. A study of ERP implementation in three hospitals in Singapore by Soh and Sia (2004) illustrates the misalignment problem. The ERP system was developed for the European and US markets, where the institutional context at the society level for healthcare is marked by being either highly subsidized (the European market) or paid for by healthcare insurance (the US market), and the ERP system was inscribed (Latour 1987) with this logic, which is contrary to the tradition in Singapore, where a complicated co-payment calculation depending on bed-class etc. is widely implemented with invoices sent to both the patient and the state for a stay in hospital. This is an example of a clash between the Western and Singaporean institutional contexts, shaping the implementation and use of the ERP package in the three hospitals. Another study indicates many difficulties of the implementation of ERP in highly regularized organizations in Egypt, a transitional country, because the organizations have to obey certain laws and regulations, which are hard to build into the ERP systems. The recommendation is to adopt tailor-made software in these kinds of organizations (Kholeif et al. 2008), which is in stark contrast to the promises of global systems with country-specific capabilities (Oracle 2008). Both studies are non-Western, so is the problem that ES are designed in a Western context for Western organizations? That is probably one reason and indicates that the “multi-everything ES” of course has its limitations, but another study shows that the American institution NASA had similar problems, and they solved the gaps between the existing practices in the organization and the best practices supporting the ES by accepting a loose coupling; the study points out the fact that a loose coupling can be vital to stabilize an ES (Berente 2009). Finally, the two studies about the food and beverage company and Norsk Hydro indicate similar alignment challenges (Elbanna 2008; Hanseth and Braa 1998). Resolving misalignment is thus a fundamental and complex problem associated with the management, implementation and use of ES.

5 Discussion: Towards Reconciling the Camps

The previous sections have presented two contrasting perspectives on ES. Such descriptions of two camps tend to be more rigid and undifferentiated than the underlying literature deserves, and have a tendency to present the perspectives as black or white, right or wrong – in short, dichotomous – and this presentation is no exception! This could lead to an unfruitful *polarization* on equal terms with the “hard” and “soft” approaches to research in the IS field (Fitzgerald and Howcroft 1998). However, a more viable approach is to reconcile the two camps. The concept of *polarity* can help advance this reconciliation and can be summarized briefly as “All magnets have both a north and a south pole. Neither can exist without the other – if the north pole section of a magnet is removed … a new magnet is created with both north and south pole … these poles exist not in isolation of each other, but by virtue of each other” (Fitzgerald and Howcroft 1998: 323). The same kind of thinking can be applied in this context. The two camps are not entrenched and isolated opposites, but are mutually dependent and overlapping, supporting a viable debate. Much of the critical discourse in the social study of ES has grown up in opposition to the managerial and technical understanding (Pollock and Williams 2009: 7). The social studies call attention to the complexities, difficulties and struggles of ES (e.g. Hanseth and Braa 1998; Soh and Sia 2004), and sometimes give the impression that it is a wonder that ES extends at all (Pollock and Williams 2009: 7). However, the enormous growth in ES packaged software indicates (D’Aquila et al. 2009; Jacobson et al. 2007) that ES *do* extend and that a number of organizations must have some degree of success with ES despite all the challenges, and it is relevant to ask why the ES was a success, which factors contributed to the success and how benefits can be achieved, to mention a few questions. The studies, reports about how to achieve a successful implementation (e.g. Beatty and Williams 2006; Parr and Shanks 2003) and gain value from ES (e.g. Deloitte Consulting 1999; Ross and Vitale 2000) etc., have their raison d’être with the managerial and technical focus on the management, implementation and use of ES.

It is thus essential to understand how the two camps contribute to research and practice including their strengths and weaknesses, and move towards a differentiated, nuanced and reconciled view!

This reconciled view is relevant for research, because the two camps appears to evolve without understanding and relating to each other, which results in a simplifed understanding of management, implementation and use of ES from both perspectives, while the proposed reconciled view will enable a more holistic understanding.

The implications for practice especially focusing on engaged scholarship (Mathiassen and Nielsen 2008; Van de Ven 2007) are not obvious in first hand for this reconciled view, but might in fact be a possibility. Managers, users, developers, consultants and other stakeholders appear to be brought up in the managerial and technical tradition in business, management, software engineering and computer science although sociological perspectives also sneak in. Applying this reconciled view of ES offers practitioners conceptual tools for understanding and explaining complex scenarios in organizations involving ES (adapted from Currie 2009) to complement and contrast the typified managerial and technical understanding, which are a highly relevant topic for engaged scholarship.

6 Conclusion

The purpose of this paper was to present two contrasting perspectives of ES and argue for a reconciled view: First, “the managerial or technical understanding of ES” focusing on economic efficiency and improved financial performance, and second, the perspective labelled “the social study of enterprise systems,” where scholars have advanced situated and localist explanations for ES. The two camps tend to be understood as dichotomous, but the paper argues that the two camps instead should be seen as mutually dependent and overlapping so moving towards reconciliation. The reconciled view is relevant for research to create a more holistic understanding and to give practitioner a conceptual tool to understand complex scenarious involving ES.

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